

### **REMARKS**

Applicants appreciate the Examiner's thorough consideration provided the present application. Claims 1-4 are now present in the application. Claim 1 has been amended. Claim 1 is independent. Reconsideration of this application, as amended, is respectfully requested.

#### **Reasons for Entry of Amendments**

It is respectfully requested that the present amendments be entered into the official file in view of the fact that the amendments to the claims automatically place the application into condition for allowance. In the alternative, if the Examiner does not believe the application is in condition for allowance, it is requested that the amendments be entered for the purposes of appeal. The amendments simplify the issues on appeal by further amending independent claim 1 to address the Examiner's rejection under 35 U.S.C. § 103.

#### **Claim Rejections Under 35 U.S.C. § 103**

Claim 1 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Popat, U.S. Patent No. 6,678,415 (hereinafter Popat), in view of Gell et al., U.S. Patent No. 5,802,502 (hereinafter Gell et al.). Claims 2-4 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Popat in view of Gell et al., and further in view of Otsuka et al., U.S. Patent No. 6,700,674 (hereinafter Otsuka). These rejections are respectfully traversed.

Complete discussions of the Examiner's rejections are set forth in the Office Action, and are not being repeated here.

As the Examiner will note, independent claim 1 recites a combination of elements including “specifying means for entering by a user a job specification comprising product specifications specifying the product to be delivered by the job and specifications specifying circumstantial constraints without effect on the product, in considering selection from the pool of services” and “determining means for determining a path of services, the services being selected from the pool of services, wherein the path is suitable to carry out the job in accordance with the product specifications, and wherein the determining means is operable to take into account circumstantial constraints for that job”.

Applicants respectfully submit that the above combination of elements as set forth in amended independent claim 1 are not disclosed or suggested by references relied on by the Examiner.

Popat discloses a text recognition system for integrating a language model into the network by selectively expanding the network to accommodate the language model only for certain ones of the paths in the network (see Abstract). The language model generates probability distributions indicating the probability of a certain character occurring in a string (see Abstract). Selectively expanding the image network is achieved by initially using upper bounds on the language model probabilities on the branches of an unexpanded image network (see Abstract). A best path search operation is then performed to determine an estimated best path through the image network using these upper bound scores (see Abstract). In other words, the best path search operation is performed to obtain the closest character symbols to the text image using the character symbols associated with the branches of the complete path.

The Examiner alleged that Popat teaches the “determining means... wherein the determining means is operable to take into account circumstantial constraints for that job” as recited in claim 1 and referred to the upper bound score of each node in the path as the “circumstantial constraints” as recited in claim 1. Applicants respectfully disagree.

In particular, claim 1 recites “specifying means for entering... specifications specifying circumstantial constraints *without effect on the product*”. However, Popat discloses that

A key constraint necessary to ensure optimal decoding with respect to the language model is that each node in the graph have the proper language model score... attached to the best incoming branch to that node. *Failure to observe this constraint may cause the dynamic programming operation to reject a path through the graph that is an actual best path because of an incorrect score attached to a branch.* (See col. 6, lines 63-67; col. 7, lines 1-3. Emphasis added.)

In other words, the upper bound score of each node in the path has a significant effect on the final product of the text recognition when taking into account the upper bound score of each node to determine the best path.

In the Examiner’s Office Action dated September 30, 2005, the Examiner indicates that the above portion of Popat that is relied on is not related to specifying means for entering by a user the job specification. However, the above portion of Popat is related to the portion of Popat that the Examiner considers to teach the “determining means” of the presently claimed invention. The determining means also “takes into account the circumstantial constraints” for a particular job. Since the “specifying means” indicates that the circumstantial constraints do not have an effect on the product, Applicants submit that the above portion of the Popat reference teaches away from the present invention.

In addition, the upper bound score of each node is provided by the language model (see Abstract) and therefore is not entered by the user as recited in claim 1.

In the Examiner's Office Action dated September 30, 2005, the Examiner indicates that the job specifications are entered by a user (as apparently taught by Gell et al.). However, Applicants were not discussing the Gell et al. reference, Applicants were discussing the Popat reference. In the Popat reference, the upper bound score, which the Examiner considers to be the circumstantial constraints, are not entered by the user. Claim 1 recites that the job specification is entered by the user, and the job specification includes "specifications specifying circumstantial constraints *without effect on the product*." Since the determining means considers the circumstantial constraints, it is necessary that the circumstantial constraints be entered by the user by the specifying means.

In view of the above, Popat fails to teach "specifying means for *entering by a user...* specifications specifying circumstantial constraints *without effect on the product*." and "determining means... wherein the determining means is operable to *take into account circumstantial constraints* for that job".

The Examiner relies on the Gell et al. reference in order to make up for the above deficiencies of Popat. Gell et al. discloses a system for selecting a telecommunications service provider based on the transaction pricing signals (see Abstract). The Examiner alleged that it would have been obvious to perform Gell's telecommunications services from the interconnected devices with Popat's best path search to the interconnected devices. Applicants respectfully disagree.

In fact, Popat is simply non-analogous art to Gell et al. As mentioned, Popat's best path search operation is to obtain the closest character symbols to the text image based on a language model, which is irrelevant to selecting a telecommunications service provider based on the

transaction pricing signals as disclosed in Gell et al. Therefore, one skilled in the art would not have the motivation to modify Popat's best path search in view of Gell et al.

In the alternative, even if Popat and Gell et al. were combinable, assuming *arguendo*, the combinations of Popat and Gell et al. as applied by the Examiner would still fail to teach or suggest the invention as recited in claim 1. As mentioned, Gell et al. discloses a system for selecting a telecommunications service provider based on the transaction pricing signals. Gell et al. further discloses that the processor 14 receives the pricing signals, including the price data and quality data of the services, from the service providers and then selects the service provider with the lowest adjusted price (see col. 5, lines 47-52; col. 6, lines 17-19). In other words, the price data is obtained from the service providers, *not from the entry of the user*. Therefore, Gell et al. fails to teach "specifying means for *entering by a user* a job specification comprising product specifications specifying the product to be delivered by the job and specifications specifying circumstantial constraints without effect on the product" as recited in claim 1.

In fact, Gell et al. merely provides an automatic selection to the lowest price service without the user intervention. Unlike Gell et al., the present invention provides for a feature that the user can specify a number of constraints and select one of the choices returned by the system based on the constraints. This feature is clearly absent from Gell et al.

While not conceding to the appropriateness of the Examiner's rejection in view of the Popat and Gell, independent claim 1 has been further amended to define over the combination of references relied on by the Examiner. Specifically, independent claim 1 has been amended to recite "user interface means for presenting the paths suitable to carry out the job," user interface means for, after the paths have been presented, enabling modification of the job specification by

the user” and “means for, upon modification of the job specification, involving the determining means again for determining a path of services, based on the modified job specification.”

Support for the above amendments to independent claim 1 can be found on the paragraph bridging pages 21-22, Figure 7, and Figure 6b with reference to the button “modify setting.” Applicants respectfully submit that amended independent claim 1 clearly defines over the combination of Popat and Gell et al.

As mentioned above, the Popat reference fails to disclose any interaction by the user. In view of this, Popat fails to disclose the user interface means that enables modification of the job specification by the user. With regard to the Gell et al. reference, this reference is silent with regard to a user being able to modify a job specification that has been previously presented to the user. In Gell et al., the processor 14 selects the lowest price, taking into consideration subjective quality of service data. Once the lowest price is selected, there is no indication of user modification in the Gell et al. reference. In view of this, the combination of Popat and Gell et al. fail to disclose the “user interface means” and the “means, upon modification of the job specification, for involving the determining means again” as recited in independent claim 1. Therefore, the combination of Popat and Gell et al. fails to render obvious the presently claimed invention.

With regard to the Examiner’s reliance on Otsuka, this reference has only been relied on for its teachings relating to the subject matter of dependent claims. Otsuka also fails to disclose the above combination of elements as set forth in amended independent claim 1. Accordingly, Otsuka also fails to cure the deficiencies of Popat and Gell et al.

Accordingly, none of the references utilized by the Examiner individually or in combination teach or suggest the limitations of amended independent claim 1 or its dependent claims. Therefore, Applicants respectfully submit that claim 1 and its dependent claims clearly define over the teachings of the references relied on by the Examiner.

Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103 are respectfully requested.

### **CONCLUSION**

All the stated grounds of rejection have been properly traversed and/or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently pending rejections and that they be withdrawn.

It is believed that a full and complete response has been made to the Office Action, and that as such, the Examiner is respectfully requested to send the application to Issue.

In the event there are any matters remaining in this application, the Examiner is invited to contact the undersigned at (703) 205-8000 in the Washington, D.C. area.

Application No.: 09/974,911  
Amendment dated January 30, 2006  
Reply to Office Action of September 30, 2005

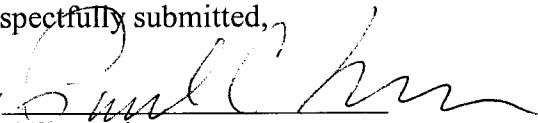
Docket No.: 0142-0362P

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If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

Dated: January 30, 2006

Respectfully submitted,

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